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APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,012	· ·	01/18/2002	Douglas Morgan Freimuth	YOR920010561US2	2130
54856	7590	05/19/2006		EXAMINER	
LOUIS PA			AVELLINO, JOSEPH E		
3 CLOVERI MONSEY,				ART UNIT	PAPER NUMBER
,		-		2143	
			DATE MAILED: 05/19/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)					
	10/053,012	FREIMUTH ET AL.					
Office Action Summary	Examiner A	Art Unit					
,	14	2143					
The MAILING DATE of this communication a	Joseph E. Avellino						
Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REF THE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication If the period for reply specified above is less than thirty (30) days, a r - If NO period for reply is specified above, the maximum statutory peri - Failure to reply within the set or extended period for reply will, by stated any reply received by the Office later than three months after the material patent term adjustment. See 37 CFR 1.704(b).	N. 1.136(a). In no event, however, ma eply within the statutory minimum of od will apply and will expire SIX (6) I tute, cause the application to becom	y a reply be timely filed  thirty (30) days will be considered timely.  MONTHS from the mailing date of this communication. e ABANDONED (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on 10	October 2005.						
2a) ☐ This action is <b>FINAL</b> . 2b) ☐ T	his action is non-final.						
3) Since this application is in condition for allow	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice unde	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims							
<ul> <li>4a) Of the above claim(s) <u>15-17 and 21</u> is/ar</li> <li>5) ☐ Claim(s) is/are allowed.</li> <li>6) ☒ Claim(s) <u>1-14,18-20,22 and 23</u> is/are rejected.</li> <li>7) ☐ Claim(s) is/are objected to.</li> </ul>	<ul> <li>✓ Claim(s) 1-23 is/are pending in the application.</li> <li>4a) Of the above claim(s) 15-17 and 21 is/are withdrawn from consideration.</li> <li>☐ Claim(s) is/are allowed.</li> <li>✓ Claim(s) 1-14,18-20,22 and 23 is/are rejected.</li> </ul>						
Application Papers							
9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. § 119							
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Profesorous's Potent Drowing Review (PTO-948)		ew Summary (PTO-413) No(s)/Mail Date					
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/Paper No(s)/Mail Date</li> </ul>		of Informal Patent Application (PTO-152)					

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## **DETAILED ACTION**

1. Claims 1-23 remain pending in this examination. Claims 15-17, and 21 remain withdrawn as being drawn to a nonelected invention.

#### Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection and was received on March 10, 2006. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 1, 2006 has been entered.

#### Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-14, 18-20, 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Goyal et al. (USPN 6,976,258) (hereinafter Goyal).

4. Referring to claim 1, Goyal discloses a method comprising employing at least one system for differentiating at least one service class in a kernel (i.e. operating system) using service differentiation (i.e. QoS) to perform service differentiation based

on content in at least one data packet for connections accepted in said at least one system (i.e. connections are accepted pending QoS requirement fulfillment), including the steps of:

capturing at least one data packet until a complete application header is detected ("all such requests are received by the server application program") (i.e. an inherent feature of receiving a request is that the packet has an application header) (col. 6, lines 45-50);

parsing said complete application header to determine at least one application tag (i.e. attribute information such as source and destination address 201 which are contained in the application header) (col. 9, lines 28-38);

matching said at least one application tag to at least one matching rule (i.e. where the communication channel is to one of the network addresses) (col. 9, lines 30-38);

determining a presence of at least one match with said at least one matching rule (i.e. where the communication channel is to one of the network addresses) (col. 9, lines 30-38); and

performing service differentiation (i.e. setting the quality of service guarantees, the object code calls the operating system QoS manager 127 to request an appropriate QoS guarantee to the child process 109) (col. 9, lines 38-55).

5. Referring to claim 2, Goyal discloses the application tag includes a tag in a communication protocol (i.e. a destination address is a tag in HTTP)

- 6. Referring to claim 3, it is an inherent feature in HTTP that the URI (i.e. destination address) is the second string in the HTTP header, (the first string is the action word, such as GET POST HEAD SYN, etc.).
- 7. Referring to claim 4, Goyal discloses employing a table having at least one matching rule (i.e. QoS parameter table 119) (Figure 1; col. 7, lines 60-65).
- 8. Referring to claim 5, Goyal discloses finding a best match (i.e. finding the network address requested) (col. 9, lines 30-45).
- 9. Referring to claim 6, Goyal discloses service differentiation includes rate controlling (i.e. guaranteeing a quality of service) (col. 9, lines 38-55).
- 10. Referring to claim 8, Goyal discloses said action includes protocol control (i.e. QoS rate guaranteeing) (col. 9, lines 30-35).
- 11. Referring to claim 9, Goyal discloses installing at least one matching rule (i.e. the Virtual Host QoS program 117inserts the QoS Table 119 into the OS to be used by the QoS manager 127) (col. 7, lines 60-65).

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12. Referring to claims 10 and 11, Goyal discloses detecting establishment of a new TCP connection (i.e. request for Address) (col. 1, lines 15-20; col. 6, lines 45-50).

- 13. Referring to claim 12, Goyal discloses the step of establishing a new TCP connection includes receiving a SYN packet, sending a SYN-ACK packet, deferring accept, receiving ACK for SYN-ACK and deferring notification of data packet (this is an inherent feature of the HTTP basic 3-way handshake for Connection synchronization which can be found in the <a href="mailto:Transmission Control Protocol DARPA Internet program">Transmission Control Protocol DARPA Internet program</a>
  Protocol Specification September 1981 prepared by Information Sciences Institute,
  USC, page. 31 Figure 7) (col. 6, lines 45-50).
- 14. Referring to claim 13, detecting application header delimiters for said data packet is an inherent feature of Goyal since without this detection step, the system would not know where the header starts and ends.
- 15. Claims 14, and 18-20, 22, and 23 are rejected for similar reasons as stated above.

# Claim Rejections - 35 USC § 103

- 16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goyal in view of Taylor et al. (USPN 6,728,885) (hereinafter Taylor) (cited in previous Office Actions).

18. Goyal discloses the invention substantively as described in claim 1. Goyal does not specifically disclose the step of performing service differentiation includes dropping based on rules that are created to provide better performance to the connections that are accepted. In analogous art, Taylor discloses another service differentiation system which includes dropping a connection based on rules that are created to provide better performance to the connections that are accepted (i.e. all firewall rules inherently provide better performance to those connections that are accepted since firewall rules block incoming traffic which will congest the network and thwart attackers from disabling

the network) (col. 6, lines 25-30). It would have been obvious to one of ordinary skill in the art to combine the teaching of Taylor with Goyal in order to achieve requested levels of security while meeting performance constraints as supported by Taylor (col. 3, lines 20-25).

### Response to Arguments

19. Applicant's arguments filed October 10, 2005 have been fully considered but they are most in view of the new grounds of rejection.

#### Conclusion

- 20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 21. Again, it is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art. As it is Applicant's right to continue to claim as broadly as possible their invention. It is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. As it is extremely well known in the networking art as already shown by Taylor and other prior arts of records disclosed. Thus, it is clear that Applicant must submit

amendments to the claims in order to distinguish over the prior art use in the rejection that discloses different features of Applicant's claim invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEA May 3, 2006

> VILLIAM C. VAUGHN, JR PRIMARY EXAMINER